CLAIMS

What is claimed is:

1. A spread spectrum receiver, comprising:

an antenna for receiving a spread spectrum signal;

a digital filter coupled to said antenna, wherein said digital filter is used to remove periodic or quasi-periodic signals within a specified band containing said spread spectrum signal.

2. The spread spectrum receiver of Claim 1, wherein said digital filter comprises a linear predictive coding filter.

3. The spread spectrum receiver of Claim 2, wherein said linear predictive coding filter comprises a lattice structure.

4. The spread spectrum receiver of Claim 1, wherein said specified band corresponds to IEEE 802.11(b).

5. The spread spectrum receiver of Claim 1, wherein said specified band corresponds to Bluetooth.

6. The spread spectrum receiver of Claim 1 further comprising a modulated CDMA receiver.

7. The spread spectrum receiver of Claim 1 further comprising an analog-to-digital converter which converts said spread spectrum signal received by said antenna into a digital signal which is input directly into said digital filter.

8. The spread spectrum receiver of Claim 7, wherein said digital filter outputs a first set of terms which correspond to said periodic signals and a second set of terms which does not include said periodic signals.

9. The spread spectrum receiver of Claim 8, wherein said first set of terms are discarded and said second set of terms are used for signal processing purposes.

10. The spread spectrum receiver of Claim 2, wherein said linear predictive coding filter outputs a prediction error which is used for signal processing purposes.

11. A linear predictive coding filter for filtering out periodic or quasi-periodic signals in a spread spectrum system.

12. The linear predictive coding filter of Claim 11, wherein said filter comprises a gradient adaptive lattice.

13. The linear predictive coding filter of Claim 11, wherein said spread spectrum system comprises a direct sequence spread spectrum system.

14. The linear predictive coding filter of Claim 11, wherein said spread spectrum system comprises a frequency hopping spread spectrum system.

15. The linear predictive coding filter of Claim 11, wherein linear prediction terms are discarded and error terms are used in signal processing.

16. The linear predictive coding filter of Claim 11, wherein said filter is used to filter out said periodic or quasi-periodic signals in compliance with IEEE 802.11(b).

17. The linear predictive coding filter of Claim 11, wherein said filter is used to filter out said periodic or quasi-periodic signals in compliance with Bluetooth.

18. The linear predictive coding filter of Claim 11, wherein said filter is used to filter out said periodic or quasi-periodic signals in a standard modulated CDMA system.

19. The linear predictive coding filter of Claim 11, wherein said filter is used in a wireless peer-to-peer system.

20. A method for filtering periodic or quasi-periodic signals in a spread spectrum signal, comprising:

receiving said spread spectrum signal;

digitizing said spread spectrum signal;

determining linear predictive coefficients corresponding to said spread spectrum signal;

discarding said linear predictive coefficients;

determining error coefficients corresponding to said spread spectrum signal;

using said error coefficients in signal processing.

21. The method of Claim 20, wherein a linear predictive coding filter is used to determine said linear predictive coefficients and said error coefficients.

22. The method of Claim 20 further comprising the step of performing a gradient adaptive lattice method to determine said linear predictive coefficients and said error coefficients.

23. The method of Claim 20 further comprising the step of filtering said periodic or quasi-periodic signals in accordance with IEEE 802.11(b).

24. The method of Claim 20 further comprising the step of filtering said periodic or quasi-periodic signals in accordance with Bluetooth.

25. The method of Claim 20, wherein said spread spectrum signal comprises a modulated CDMA.